

Outline on ISO PWI 26683

Freight conveyance content identification and communication architecture - Application profile and Security profile

2008 April 10

Dr. Shinichi ISHII, Japanese delegate with ISO TC204 WG7
(Nomura Research Institute Ltd)



ISO/TC204 WG7 Scope

Standards to Facilitate Commercial Freight Industry
in their interaction with
local, national and international authorities

Improve
Management
Safety Security
Operation

of
Vehicles
freight
operators

Within
Modal
intermodal
Multimodal
Environment

Background and Objective of ISO/TC204/WG7.3

- Requirement for more efficient road transport such as 'Vehicle movement control', 'Freight movement Control', 'Freight Security' etc.
- Efficient road transport contributes environmental issues.
- Visibility by using existing equipment (OBE:On-Board-Equipment)in Road Transport
- Advantage of OBE
 - ▶ readable while moving fast
 - ▶ high capacity
 - ▶ Using existing = No additional cost
- This international standard describes for communication system between Roadside and On Board Equipment for freight conveyances on Road Transport. Such as ;
 - Data Structure
 - Communication Architecture between Roadside and On Board Equipment
 - Application profile
 - Security Profile

We are in the stage of preparing New Proposal

April 2005
in Paris

- ➔ Requirements for Facilitating “ISO CD24533 Intelligent Transport Systems – Data Dictionary and Message Set for Monitoring of Freight and its Intermodal Transfer – Road Transport Information Exchanges” was proposed .

Nov. 2005
in Portland

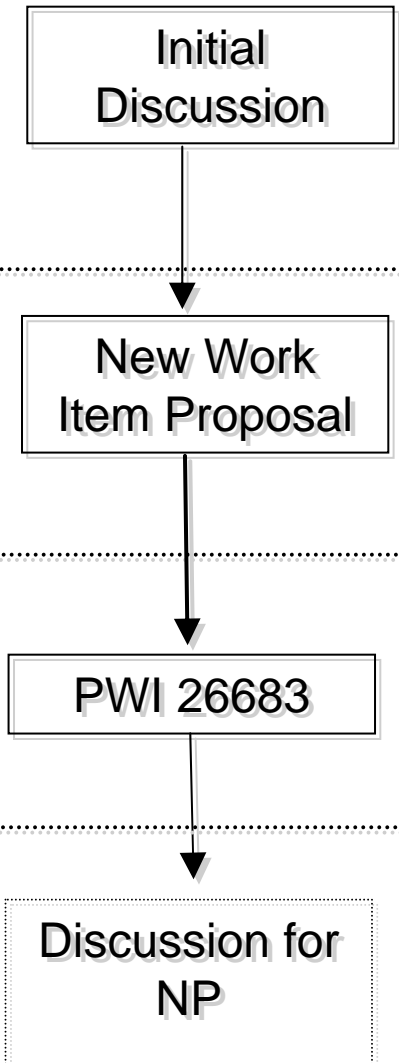
- ➔ Joint work between ISO/TC204/WG7(Commercial Freight Management) and ISO/TC204/WG4(AVI/AVE)
- ➔ ISO/TC204/ SWG7 received ISO/PWI 26683.

Apr 2006
in Busan

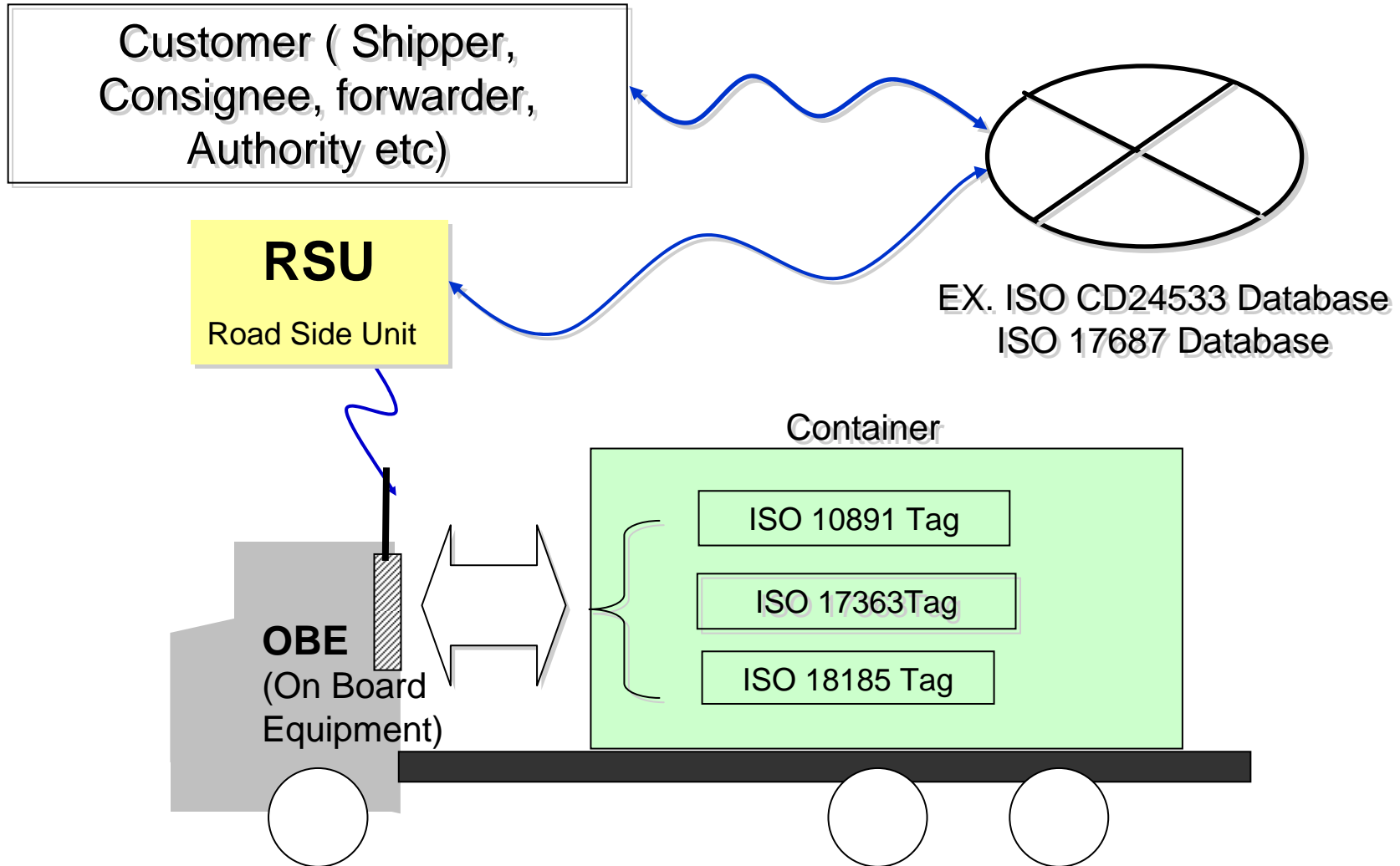
- ➔ New Sub Working Group ISO/TC204/ SWG7.3 started under TC204 WG7.
- ➔ Security profile were added to the scope by being suggested by ISO/TC204/ WG4

Apr 2007
In Lexington

- ➔ Started discussion with ISO/TC204/ WG4 to harmonize the scope and contents



Draft image of Communication Architecture



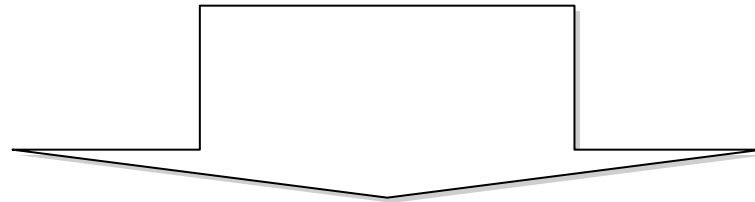
Orchestration is one of key challenge !

For example:

- ISO/TC104 has been developing tag standards for ocean container.
- ISO/TC204 has been developing Vehicle Identifiers Coding System
- ISO/IEC JTC1 SC31 has been developing RF-tag standards for Vehicle, Freight, Pallet and goods.
- WCO, EU and DHS in the US are getting highlighted to Security Initiatives
- EPCglobal and other private initiatives are getting active for developing Rf-tag standards from user perspective.

What are the benefits for the ocean shipping and terminal operator industries?

- We are thinking about how to connect existing system.
- On Board Equipment is now used only for electronic tolling and navigation, but if we are going to use it as a data storage for cargo information and communication system, we may be able to minimize additional investment for road transport



- Harmonization of OBE and Rf-tag enable cargo visibility in road transport with reasonable investment cost
- May possible impact for RF-tags in the container. Not necessary to have large memory capacity from road transport perspective

How to transfer cargo information from Vehicle by using ISO/TC204/WG4 deliverables upon demand from users

1. Using CSI (Coding Structure Identifier) defined based on ISO/TS 14816 Numbering and data structure

CSI1 = representative identifier

2. Proposing the new number (CSI xx) of TC204 WG4

CSI XX	Message
--------	---------

3. Using Object ID of ASN.1 newly defined for this work Item

IS number	Message
-----------	---------

4. Using an application management element defined based on CALM architecture Defined by TC204 WG16

Application Message ID	Message
------------------------	---------

How to way it forward ?

- We will discuss about how to orchestrate existing standards for fitting intermodal transport communication profile and security profile – road transport.
- Thinking about Contribution for TC104 SC4 WG2 activity
- Consideration about joint working group. Requirement for the usage of OBU from Container RF-tags perspective
- We are proceeding with NP.